

REMARKS

Claims 1-42, 44, 45, 47-57 and 94-128 are pending in this application. Claims 58-93 have been withdrawn from consideration and are hereby cancelled pending the possible filing of a divisional application. Claims 43 and 46 are canceled and claims 1-23, 30, 44, 45 and 57 have been amended herein. Claims 94-128 are newly added. Applicant respectfully requests reconsideration of the claims in view of the following remarks.

The specification has been objected to because the CROSS-REFERENCE TO RELATED APPLICATIONS on page 1 needs to be updated. In response, this paragraph has been updated.

Applicant wishes to thank the Examiner for indicating the allowable subject matter in claims 43-46. As will be discussed below, the limitations of claim 43 have been added to independent claim 23 and claim 46 has been rewritten in independent form as claim 98.

Claims 52, 53 and 57 have been objected to for informalities because the claimed subject matter was not disclosed or described in the specification. Applicant respectfully submits that the subject matter of each of these claims was disclosed in the specification as originally filed. In particular, Paragraph [0040] states that "[i]n the preferred embodiment, the relative-permittivity of the low-k dielectric 138 is less than about 3.5, and more preferably less than about 3.0," which discloses the subject matter of claims 52 and 53. Paragraph [0032] states "isolation techniques such as mesa isolation can be used," which supports the objected to portion of claim 57.

Claims 21-22 and 57 have been rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 21 and 22 have been amended to provide clear antecedent basis for the elements noted by the Examiner. In addition, claim 57 has been

amended to make clear that the questioned term "semiconductor" was part of the term "semiconductor-on-insulator" or SOI.

Claims 1-42 and 47-56 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Belleville, *et al.* (U.S. Patent No. 6,558,998) in view of Yang, *et al.* (U.S. Patent No. 6,518,610). Applicant respectfully traverses this rejection.

Claim 1, as amended, specifically recites "a bottom electrode formed in a portion of the semiconductor layer; [and] a channel region formed in a second portion of the semiconductor layer." Applicant respectfully submits that the references of record do not teach or suggest the limitations of claim 1. For example, Belleville does not teach a channel region in a second portion of the semiconductor layer 110, which the Office Action has cited as teaching a bottom electrode.

Claims 2-22 and 94-97 depend from claim 1 and add further limitations. It is respectfully submitted that these dependent claims are allowable by reason of depending from an allowable claim as well as for adding new limitations.

Claim 23 has been amended herein to include the limitations of objected to claim 43. The Examiner has indicated that this claim is allowable. Claims 24-42, 44, 45, and 47-57 that depend from claim 23 are also allowable.

In addition, claims 98-128 have been added herein. Claim 98 includes the limitations of originally filed claim 46, which the Examiner indicated was allowable. As a result, these claims are allowable.

Applicant has made a diligent effort to place the claims in condition for allowance. However, should there remain unresolved issues that require adverse action, it is respectfully requested that the Examiner telephone Ira S. Matsil, Applicant's attorney, at 972-732-1001 so

that such issues may be resolved as expeditiously as possible. No fee is believed due in connection with this filing. However, should one be deemed due, the Commissioner is hereby authorized to charge Deposit Account No. 50-1065.

Respectfully submitted,



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Date

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